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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/729,701	12/06/2000	Yutaka Maruyama	1232-4475US1	6870
27123	7590	12/02/2004	EXAMINER	
MORGAN & FINNEGAN, L.L.P.			TUGBANG, ANTHONY D	
3 WORLD FINANCIAL CENTER			ART UNIT	
NEW YORK, NY 10281-2101			PAPER NUMBER	

3729

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/729,701

Applicant(s)

MARUYAMA ET AL.

Examiner

A. Dexter Tugbang

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14 and 17-26 is/are pending in the application.
- 4a) Of the above claim(s) 23-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14 and 17-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/162,378.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The applicant(s) response filed on 9/1/04 has been fully considered and made of record.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. The rejections are maintained and hereby repeated below for the applicant(s) convenience.

Election/Restrictions

3. Applicant's election with traverse of the invention of Group I, Species A, Claims 14 and 17-22, in the reply filed on 9/1/04 is acknowledged. The traversal is on the ground(s) that the search and examination of both Groups and both Species of inventions can be performed without serious burden. This is not found persuasive because the examiner has provided explicit examples as to the reasons for distinctness, i.e. either through the intermediate-final product relationship, or the different species, in the last Office Action (dated 6/2/04). These examples present distinct lines of patentability for each of the inventions and that to search and examine all of the claims presented, would be a serious burden on the examiner to the extent that the searches would be non-coextensive and divergent and that different art would have to be applied for each invention. Accordingly, the requirement is still deemed proper and is therefore made FINAL.
4. Claims 23-26 continue to stand as being withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic

or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 9/1/04.

Claim Rejections - 35 USC § 103

5. Claims 14, 17, 19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imasaka et al 5,150,000 in view of Watanabe et al 5,068,052.

Imasaka et al discloses a vibration type driving apparatus comprising the following structure: a vibration member (piezoelectric element 1a in Fig. 2); a contacting member (stator 2a) contacting the vibration member; and a friction member 4a provided on the contacting portion (top surface) of the contacting member 2a.

Regarding Claim(s) 14 and 19, Imasaka teaches at least one example in that the friction member 2a is formed from a resin composition containing a pitch based carbon fiber and at least polyimide resin (see col. 2, lines 33+ and Table 2).

Regarding Claim(s) 17, Imasaka shows at least two examples (A and B in Table 2) that the content of the pitch based carbon fiber in the friction member can be either 10 or 20 wt%.

Regarding Claim(s) 22, Imasaka further teaches that the vibration type driving apparatus is a motor, which acts a drive source for electric power (see col. 1, lines 13+).

Imasaka does not appear to mention that the pitch based carbon fiber is in a "mesophase" state such that it can be called a "mesophase pitch based carbon fiber". It is noted that the term mesophase is defined as the degree to which the carbon fiber has liquid crystalline properties¹.

¹ IUPAC Compendium of Chemical Terminology.

Watanabe teaches that allowing carbon fibers to be in a mesophase pitch based state with a degree of liquid crystalline properties (see Claims 4 and 5), has the advantages of providing a resin composition with suitable molding properties (see col. 4, lines 44-48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the carbon fibers of Imasaka by forming the carbon fibers in a "mesophase pitch based" state, as taught by Watanabe, to positively provide a resin composition with suitable molding properties.

6. Claims 18, 20 and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Imasaka et al in view of Watanabe et al, as applied to claim 14 above, and further in view of Tamai et al 5,380,805.

Imasaka, as modified by Watanabe, discloses the claimed apparatus as previously discussed above. The modified Imasaka apparatus does not mention the specific resin compositions recited in each of Claims 18, 20 and 21.

Tamai suggests that resin compositions can include either one of a fluoresein, molybdenum disulfate, or a polyimide powder (see col. 39, lines 3+), for the benefits of improving wear resistance in the molded resin composition (see col. 17, lines 13+).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the resin composition of Imasaka by utilizing the various compositions of resins taught by Tamai, to provide the benefits of mechanical strength and improved wear resistance in the resin composition of the friction member.

Response to Arguments

7. Applicant's arguments filed 9/1/04 have been fully considered but they are not persuasive.

8. In response to applicant's argument that there is no suggestion to combine the above references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both Imasaka and Watanabe share the concept of utilizing resin compositions as each is solving the problems associated with resin compositions. As explained in the above rejection, one of ordinary skill in the art would be motivated to look to Watanabe because of the problems associated with resin compositions and because Watanabe has certain benefits associated with using a "mesophase pitch based carbon fiber" within resin compositions. These very benefits of Watanabe, one such is to achieve a certain degree of crystalline properties to provide suitable molding properties, would provide a more than reasonable expectation of success. Accordingly, the examiner maintains that the combination of references as applied above would be obvious. Moreover, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion


9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 703-308-7599. The examiner can normally be reached on Monday - Friday 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



A. Dexter Tugbang
Primary Examiner
Art Unit 3729

November 29, 2004